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FOR AF/W BANKS, EEB/CIP: Saeed and Blakeman

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SUBJECT: GHANA'S ICT DEVELOPMENT: IS THE GLASS HALF FULL?

REF: ACCRA 1725

11. (SBU) SUMMARY: This is the first of two cables on the Information Communications Technology (ICT) sector in Ghana. covers policy and services. Septel will address privatization of the two national carriers. Ghana's ICT sector has considerable promise. Telephone penetration rates have risen, costs have come down, and availability of advanced ICT services is expanding. Nevertheless, Ghana is far from realizing its potential in the sector. Even more impressive progress has been hamstrung by bungled privatization, regulatory gaps, and questionable business practices by state-owned Ghana Telecom (GT), as well as general business climate challenges. According to the World Bank's PPI Database which tracks private participation in infrastructure, sixty percent of total investment in the sector since 1992 has failed. However, Ghana may soon overcome some significant hurdles. Long-stalled privatization plans for GT and WESTEL may finally be realized in 2007 (see septel). Government investments in ICT, such as the national switch and fiber optic network, are moving forward and could have significant positive spillover effects for the private sector. End Summary.

## BACKGROUND

12. (U) Ghana deregulated its telecommunications sector in 1994, with support from the World Bank. The deregulation was aimed at increasing teledensity and rural and urban public access, expanding mobile service coverage and privatizing telecommunication businesses. The National Communications Authority (NCA) was created in 1996 to provide independent oversight and regulation but had little or no real independence or impact until 2003. A Board of Directors was not even constituted until December 2000.

## POLICY FRAMEWORK

 $\P3$ . (U) The GoG has two policies in place: the 2005 National Communications Policy: www.ict.gov.gh/Telecom%20policy/ Ghana%20Telecom%20Policy%20Final.pdf), and the 2003 ICT for Accelerated Development (ITC4AD) Policy (www.ict.gov.gh/pdf/Ghana%20ICT4AD%20Policy.p df). The former aims to integrate Ghana with new information technology by enhancing infrastructure and promoting a more economic and entrepreneurial telecommunications industry. The latter is a more detailed framework for promoting socio-economic development through an integrated ICT-led approach. Four ICT bills have been prepared to be reviewed and approved by Cabinet before submission to Parliament. They include: the New Telecom Bill, to provide regulations regarding electronic communication and broadcasting; the National Communications Authority Amendment Bill; the Electronic Transaction Bill, to regulate electronic communications and transactions; and the National Information Technology Agency, to act as a certifying

agency and monitor the implementation of national information communication technology policy. Per the Chief Director at the Ministry of Communications, Cabinet has recommended that the four bills be consolidated into one.

# SERVICES

14. (U) ICT sector contributions to Ghana's GDP rose from 1.8 percent in 2000 to 6 percent in 2005. In 2006 Ghana was noted for the fastest teledensity growth rate in Africa. While fixed line services did not increase dramatically in 2006, mobile service subscribers more than tripled in the same time period.

### FIXED-LINE

15. (U) In 2003, over half of fixed telephone lines were in the Accra region, yet only about 10 percent of Ghanaians live in Accra and 56.2 percent of Ghanaians live in rural areas. The current number of telephone lines found in the northern part of the country is fewer than 5% (the Northern, Upper East, and Upper West Regions account for 18% of Ghana's population) and users throughout Ghana are generally willing to pay more for mobile connectivity because the fixed-network presents so many limitations. The NCA advertised for and selected ten new fixed-line service providers to provide regional access and improve fixed and wireless operator interconnectivity. Despite the importance of this project it is on hold because it will influence GT and WESTEL values during privatization. Nevertheless, investors may discount the price they offer knowing this will take place.

 $\underline{\P}6.$  (U) Alcatel Shanghai Bell, a Chinese telecom technology vendor,

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has been selling equipment and services for rural telecommunications infrastructure development. In 2003, Alcatel signed an \$80 million contract with GT as part of a three year upgrade and expansion program of both fixed-line and mobile networks. In 2006, another three year contract was signed as phase II. Note: China is a significant supplier of equipment for telecommunications development and plans to invest a total of \$3 billion in the sector. End note.

### MOBILE

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- 17. (U) Mobile services were introduced in Ghana in 1991. The number of subscribers rose 12% from the first to second quarter of 2007 -- from 5.6 million to 6.3 million. Ghana has four active mobile operators., All have begun to offer mobile internet service. Since 2006, all mobile operators in Ghana have the capacity to provide fixed telephony services and since 2005, all have unlimited gateway licenses and offer broadband services. The NCA has made interconnection a requirement. In 2006, WESTEL was granted a license to become the fifth mobile operator in Ghana, but is not providing service.
- 18. (U) The largest mobile provider in Ghana is Mobile Telecommunications Network (MTN) Group Limited of S.A. It recently bought Investment LLC (owners of Scancom Ghana/Areeba operators), which controlled over 50% of the mobile market. MTN has the resources and capacity to significantly increase investment and services in Ghana. Currently it is undergoing a \$150 million technical upgrade, aimed at increasing the quality of service -- and as a precursor to eventual 3G service offerings. The World Bank reports that Scancom's capital expenditures at the end of September 2006 were \$233 million. The other active providers are Tigo, OneTouch (owned by GT), and Kasapa.

#### INTERNET

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 $\P9$ . (U) Ghana was one of the first countries in Africa to become connected to the Internet. According to the United Nation's

International Telecommunication Union, as of September 2007, approximately 2.8 percent of Ghana's population (more than half a million people) was using the internet, up from 0.2 percent in 2000 and 1.8 percent in 2006. For those wishing to connect at the growing number of Internet cafes, the estimated cost of 40 pesewa to 1.5 Ghana cedis (GH) (approximately 45 cents to \$1.60) per hour is often prohibitive. For those connecting privately, infrastructure and subscription costs remain high and service quality is relatively poor. GT offers dial-up access which is billed as a phone charge; GT now also offers broadband services starting from about \$43 per month (up to \$282 for premium business services) with a \$95 installation charge. Most GoG offices and nearly half of private businesses do not provide Internet services and e-mail has yet to become an integral part of doing business. The expansion of internet services is hampered by high cost of bandwidth from SAT3 and satellite sources. Cost per month for half circuit 2Mbps (E1) bandwidth from GT's SAT3 is currently \$5,000, reduced through negotiations by the ISPs from \$12,000.

110. (U) Accra boasts more than 100 access centers with high occupancy rates; fewer options for connectivity are available in rural areas. Cafes have begun to offer additional services for ICT businesses. BusyInternet, established in 2001 and now the largest privately owned and operated ICT centre in Africa, launched BusyIncubater in 2005 with the support of the World Bank to nurture young companies by providing space, shared services, and, often, advice and financial assistance. Five Ghanaian businesses have taken advantage of these services and six companies are currently located at BusyInternet while growing their capacity.

COMING SOON

The following represent a sampling of new services and initiatives underway in Ghana.

111. (SBU) Fiber Optic Backbone Network: In 2006, a new company called the National Backbone Company Ltd (NBCL), owned by the GoG, was established to put in place a national fiber optic backbone. The NBCL took over the assets of Voltacom, owned by the GoG's power company, Volta River Authority (VRA). With concessional financing from China, Ghana is extending an existing 600km fiber optic cable ring connecting Accra, Tema, Kumasi, and Takoradi. Under the \$30 million first phase of the project, the Chinese firm, Huawei Technologies Company is installing fiber from Kumasi to Tamale and a small portion of cable required to complete the 600km ring. President Kufuor commissioned phase one of the national network construction in August and work is expected to be finished by the

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close of 2007. Phase II, costing an additional \$40 million, will extend the network into the far north of Ghana and will include an e-government/last-mile element to link all district Assemblies to the network. Some believe the network will not be financially viable throughout the country. NCA's Forson told EconOff the network should have been private sector-led from the start. However, the Chief Director at the Ministry of Communications emphasized that the GoG sees this backbone as a public good, crucial for broader development. He said affordable access to services will be a key consideration in its operation. Over the long-term, the Chief Director said the vision is to float the company on the Stock Exchange. The GoG plans to acquire bandwidth (two STM-1) from GT's SAT3 which will be linked to the NBCL fiber optic backbone.

- 112. (U) National Switch: All banks in Ghana have been asked to link their ATMs and Point of Sale devices to the new National Switch, E-ZWICH, by March 31, 2008. By July 1, 2008 all banks with existing switches are to be compatible with E-ZWICH to ensure Ghana has a common payment platform and biometric Smartcard. If this moves forward as planned, it should help bring the unbanked into the banks and expand financial services.
- 113. (U) Broadband over power-line (BPL): In early July AllTerra Gridline Communications Ghana Limited in partnership with the Volta River Authority launched a test of BPL technology. The idea is to

transmit data using the existing electricity grid, potentially at higher speed and lower cost than by other means.

- 114. (U) E-Ghana: The World Bank approved a 10 yer \$40 million E-Ghana project on August 1, 2006 to help generate growth and employment by leveraging ICT and public-private partnerships. The projects will strengthen the IT industry and the efficiency and transparency of government functions. Among the elements of the project are e-government applications and the establishment of a high-speed government-wide communications network and shared portal infrastructure.
- 115. (U) Trade by Mobile Phone: The regional Market Information Systems and Traders' Organization project (MISTOWA) received \$11 million from USAID/West Africa over three years to increase agricultural trade and food security by developing an intra-regional system for providing market information via Internet and mobile phone use. Tradenet.biz is a web platform and software provider created for use by producers (farmers) of and traders in agricultural commodities. They can now receive and transmit market information on prices, volumes of goods, and other specifications to reach new suppliers and new customers. Thus, regional trade is increasing as business is conducted via text messaging, and users are charged only the cost of regular mobile services.
- 116. (U) Enabling Mobile Banking: Ghana will be a beneficiary of a USAID/West Africa project to support M-banking, an 18 month, \$1 million project regional project. Under the project, Ghana will introduce M-banking and developed a private network for channeling national, intraregional, and international payments and remittance flows. The project is based on a USAID-funded study from March 2006 that estimated the value of informal cross border trade at \$2 billion in remittances and \$8 billion in informal trade settlements flowing annually through Ghana, Mali, Nigeria, and Senegal. Currently, only five percent of West Africa's population has a bank account. [Note: ECOBANK debit transfer services are available by mobile phone but the program is not yet robust and only transfers between accounts, not from points of sale. ECOBANK and other banks are eager to expand its mobile banking capacity. End Note]
- 117. (U) Last Mile Initiative (LMI): LMI is a USAID Global Initiative designed to expand the access of the rural poor to telecommunications. Ghana will receive \$200,000 in assistance, implemented through the Trade and Investment Program for a Competitive Export Economy (TIPCEE) which seeks to increase private sector competitiveness of Ghana's exports in world markets. LMI activities in Ghana will include: 1) the addition of electronic data exchange capacity via bar code to enable logistics management for pineapple smallholder farmers and exporters; 2) development of a packhouse-to-field telecommunications application linked to the GoG universal access fund; and 3) building of capacity related to the GoG telecommunications policy and regulatory environment.

#### -----EDUCATION

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118. (U) Through a number of education initiatives, Ghana is trying to increase the quality and quantity of Ghanaians with ICT skills needed to support sector development. Among the initiatives are:

--Ghana Telecom University College (GTUC) aims to increase job availability and income in Ghana through the use of new technologies. It offers certificate and degree programs in Computer Informatics and Computer Science, Information Technology,

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Telecommunications Engineering, and Telecommunication Management. In October 2007 it will begin offering a Master in ICT (MICT) program in conjunction with the Technical University of Denmark, the first of its kind in Ghana.

--In February 2007 the Kwame Nkrumah University of Science and Technology (KNUST) inaugurated broadband wireless Internet and a a voice telephony facility on campus. The KNUST E-Campus Network is

expected to be the hub of ICT networks throughout Ghana's

- --The Kofi Annan Centre for Information and Communication Technology Centre of Excellence began as a joint project between the governments of Ghana and India in December 2003. It is Ghana's first Advanced Information Technology Institute (AITI) and aims to stimulate growth in and build human capacity for ICT. The Centre can host nearly 1,000 teaching, learning, and research professionals at one time. It provides an incubator for private companies that will later set up in the Free-zone, and houses West Africa's first supercomputer.
- --Oracle Corporation offers a Workforce Development Program in Ghana jointly run by Oracle University and Intercom Programming and Manufacturing Company (IPMC) to provide low cost and accessible IT skills training. Students and community members can access full and part-time programs through participating educational institutions toward certification. Hewlett-Packard and Cisco provide similar free or low-cost software and hardware for IT certification programs.
- --The first National Institute of Information Technology (NIIT) center was launched in Ghana in May 2000 and quickly became the country's largest IT training school. There are now five centers training 7,500 students each year. Its education programs train individuals in software development and internet related applications for corporate clients, including banks.
- -- The World Bank is providing a \$4.2 million credit facility for Ghana to establish a Technology Park at the Tema Free Zone that will provide necessary space and infrastructure for ICT businesses.
- -- Ghana is participating in the NEPAD e-schools project.
- 119. (SBU) Comment: Ghana is eager to be a regional leader in the ICT sector, as evidenced by comprehensive planning efforts, government-backed education initiatives, task forces and frequent references to the importance of ICT in speeches of government officials. Despite impressive progress in areas such as mobile services, the sector continues to be plagued by regulatory gaps (e.g., on VOIP) and business practices of GT that bully potential investors and manipulate access. More generally, ICT depends on high quality, reliable power supply. Ghana's energy crisis has eased somewhat with a strong rainy season and start-up of emergency power sources but the quality of power is equally important. Frequent surges and variations in the current wreak havoc on electrical equipment and increase the cost of doing business. recent survey of Ghanaian businesses across all sector, 43% indicated that quality of power supply was a significant problem. End Comment.

BROWN